Hi, welcome to use Sonoff SV! Sonoff SV is a low power supply Sonoff version, which supports 5-24V input.

1. Download "eWeLink" app.

Search "eWeLink" in APP Store for iOS version or Google play for Android version.

2. Schematic diagram of equipment installation.

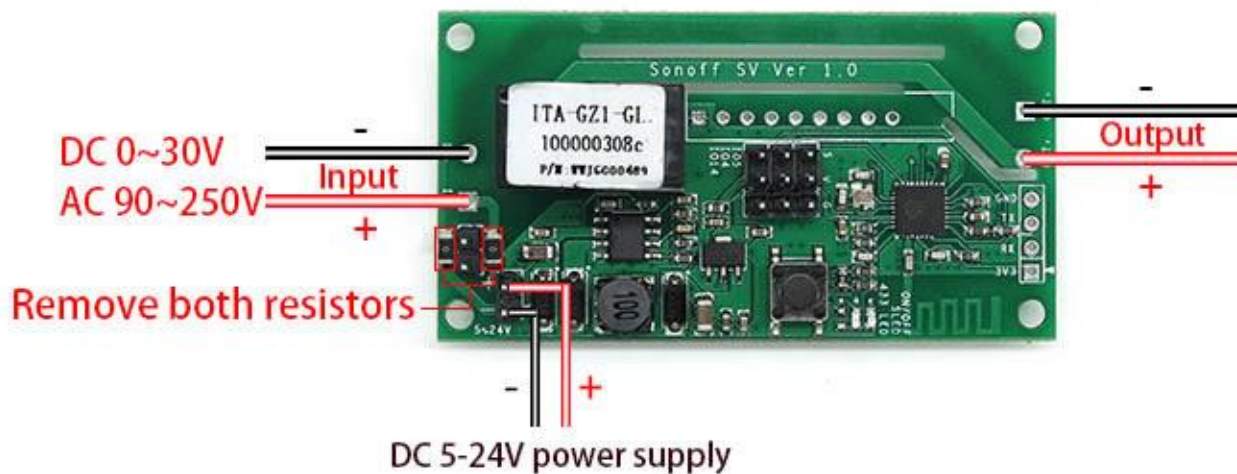In default mode, it can be powered up with 5V-24V DC, or 5V DC.

You may change the device to isolated mode, two resistors must be removed first.

Default mode:
WIFI circuit and relay circuit adopt the same power supply

-
5<Input≤24V
+
disconnect the jumper

-
Output
+

5V Input
-
5V Input
+
Connect the jumper

-
Output
+

Isolated Mode:
WIFI circuit and relay circuit can be isolated

DC 0~30V
AC 90~250V
-
Input
+
Remove both resistors

-
Output
+

- **+**
DC 5-24V power supply

3. Add Device

1. Power up the device.

2. Press the button for 7 seconds until the green LED fast blinks.

Go to eWeLink, click "+".

If the led blinks like this: please select **Quick Pairing Mode (TOUCH)**, tap **Next**.

If the led blinks like this:

a. If the device firmware is 1.6.0 or higher, please select **Quick Pairing Mode (TOUCH)**. Otherwise, it will fail to add the device. Click **Next**.
b. If the firmware of above models is lower than 1.6.0, please select **Compatible Pairing Mode (AP)** icon, click **Next**. iOS users should go to Phone Setting>WiFi>connect the WiFi begins with ITEAD-******, enter default password 12345678. Go back to eWeLink, click next.
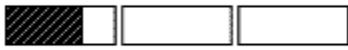3. It will auto-search and connect smart home device.

4. Input your home SSID & password:

4.1 If no password, keep it blank.

4.2 Now eWeLink only support 2.4G WiFi communication protocol, 5G-WiFi is not supported.

It takes 3 minutes , please wait...

searching device...

5. Next, eWelink register and add it to your account，it takes 1-3 minutes. When this complete, you can give your device a name.


6. Name the device to complete.

Maybe the device is "Offline" on eWeLink, for the device needs 1 minute to connect to your router and server. When the green LED on, the device is "Online", if eWeLink shows still "Offline", please close eWeLink and re-open.

4. APP Features

1. WiFi remote control and device state

Turn on/off by tapping on device icon. Device state always simultaneous display on APP.

2. Share Control
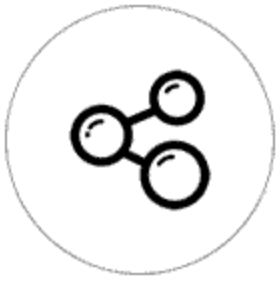
The owner can share the devices to other eWeLink accounts. While sharing devices, both should stay online on eWeLink. Because if the account you want to share is not online, he/she will not receive the invitation message.

How to make it possible? Firstly click Share, input the eWeLink account (phone number or email address) you want to share, tick the timer permissions (edit/delete/change/enable) you want to give, then click Next. The other account will receive an invitation message. Click Accept, the device has shared successfully. The other user will have access to control the device.

3. Timing

Support max 8 enabled single/repeat/countdown timing schedules each device.

4. Scene/Smart Scene

Scene allows triggering on/off your devices automatically. Scene Settings is in the upper right corner of Device List. You can set up scenes or smart scenes to trigger on/off the Sonoff SV.

Users should select "Click to execute" in the condition, add different existing devices, name the scene and save it.

5. Security mechanism

One device one owner. Other people can not add the devices that have already been added. If you want to add your device to another account, don't forget to delete it first.

6. Update

It will auto-remind you of new firmware or version. Please update as soon as you can.

5. Problems and solutions

Read the detailed [FAQ](#) on Itead Smart Home Forum. If below answers can't solve your problem, please submit a feedback on eWeLink.

1. My device has added successfully but stays "Offline".

Answers: The newly added device need 1-2 min to connect to your router and the Internet. If it stays offline for a long time, please judge the problem by the green led status:

1.1. Green led quickly blinks one time and repeats, which means device failed to connect to the router. The reason may be you have entered wrong WiFi password or your device is too far away from the router, which causes a weak WiFi signal. The device can not be added to the 5G-wifi-router, only the 2.4G-wifi is OK. At last, make sure that your router is MAC-open.

1.2. Green led slowly blinks one time and repeats, which means the device has connected to router and server but failed to be added to the device list. Then power on the device again, if it still not working, just add the device again.

1.3. Green led quickly blinks twice and repeats, this means the device has connected to the router but failed to connect to the server. Then please confirm your WiFi router works normally.

2. Why the APP can't find the device in pairing status?

Answers: That's because of your phone's cache. Please close the WLAN of your phone then open it after a minute. At the same time, please power off the device if you can, then power up to try again.

3. My WiFi is expired, can I connect the devices to LAN?

Answers: the Sonoff SV supports to be controlled by LAN(Update in 15/10/2017, LAN function has been stopped).

4. The green led keeps off, even if the device is powered on. Press the button but the device does not work.

Answers: The circuit may be broken, please send it back for testing. Return shipping postage and packaging will be at buyer's expense, if the device is damaged by the buyer, and the buyer should bear extra repair cost.

Features

- Support 5~24V power supply.

- Support fast configure SSID and password through APP.

- Support automatic connect to server, register and update status info.

- Support tracking device status and timely remote control through APP.

- Support setting single/repeat/countdown timing tasks.

- Reserve GIPO for secondary development.

WIFI Characteristics

• 802.11 b / g / n

• Built-in Tensilica L106 ultra-low power consumption 32-bit micro-MCU, dominant frequency support 80 MHz and 160 MHz, support RTOS

• Built-in TCP / IP protocol stack

• Built-in TR switch, balun, LNA, power amplifier and matching network

• Built-in PLL, voltage regulator and power supply management components, 802.11b mode +20 dBm output power

• A-MPDU&A-MSDU aggregation and 0.4μs guard interval

• WiFi @ 2.4 GHz, supports WPA / WPA2 safe mode

• Support cloud OTA upgrade

• Support STA / AP / STA + AP mode

• UART, I2C, PWM, GPIO

• Deep sleep maintain current is 10 uA, shutdown current is less than 5 uA

• Wake-up, connect and transfer data packets in 2 ms

• Standby power consumption is less than 1.0 mW (DTIM3)

• Other parameters are as follows

| Category	Parameters	Description
Wireless Parameter	Wireless standard	802.11 b/g/n
	Frequency range	2.4GHz-2.5GHz (2400M-2483.5M)
Hardware Parameter	Data port	UART/I2C
		GPIO/PWM
	Operating voltage	3.0~3.6V(recommend 3.3V)
	Operating current	Average： 80mA
	Operating temperature	0ºC-40ºC(32°F-104°F)
	Package size	65mm*34mm*16mm
Software Parameter	Wireless network mode	station/softAP/SoftAP+station
	Security mechanism	WPA/WPA2
	Encryption type	WEP/TKIP/AES
	Firmware upgration	Local serial programming/Cloud Upgrade/Host download programming
	Software development	Support secondary development
	Network protocols	IPv4, TCP/UDP/HTTP/FTP
	User configuration	cloud server, Android/iOS APP

Specification

PCB Size	65X34X1.2mm
Interface	UART
Indicator LED	WiFi, on/off

Electrical Characteristics

Characteristics	Symbol	Min	Typ	Max	Unit
Power supply voltage	VDD	5	-	24	V
Operation current for VDD	IDD	-	-	290	mA

Hardware
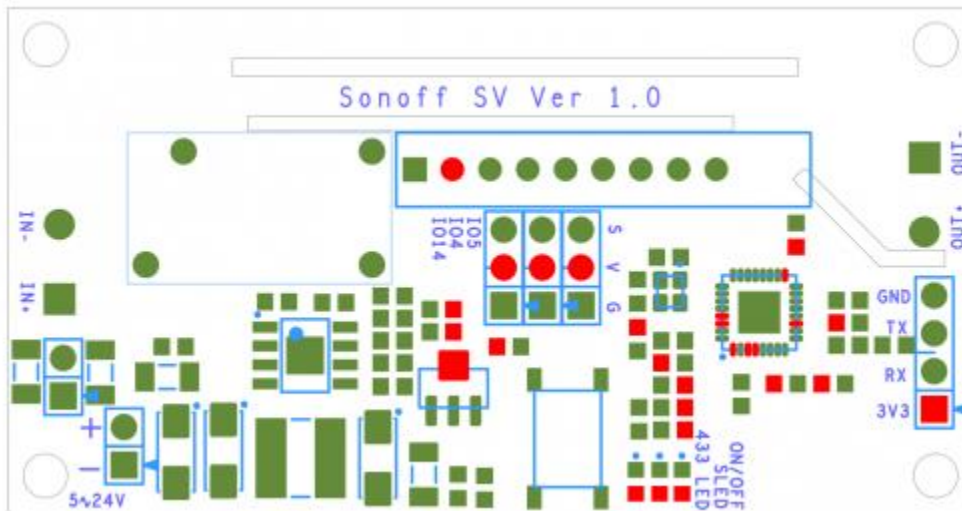
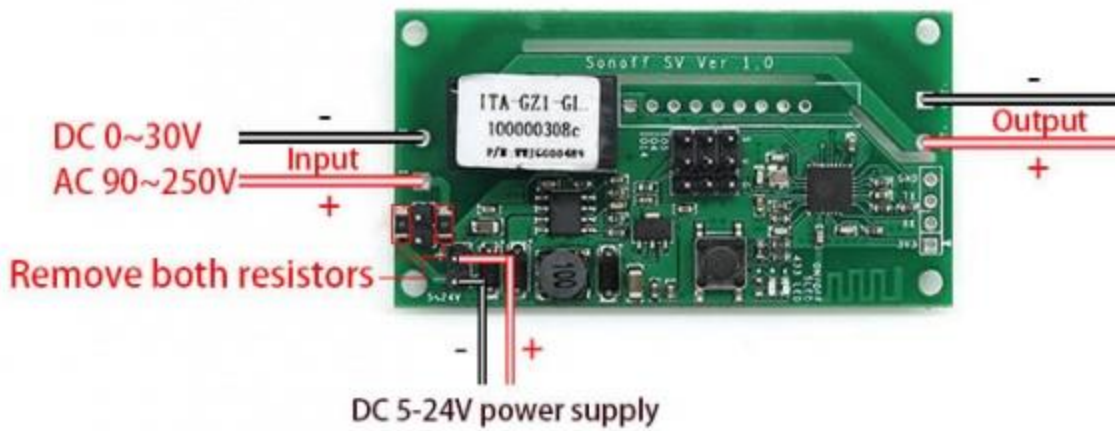# Solder Instructions

Default mode:
WIFI circuit and relay circuit adopt the same power supply

5<Input≤24V

Output

disconnect the jumper

5V Input

Connect the jumper

Output

Isolated Mode:
WIFI circuit and relay circuit can be isolated

DC 0~30V
AC 90~250V

Input

Output

Remove both resistors

DC 5-24V power supply

Pin Map

Pin Index	Pin Name	Description
1	3V3	Chip power

2	TX	Serial transmit port
3	RX	Serial receiving port
4	GND	GND
5	GPIO4	I/O
6	GPIO5	I/O
7	GPIO14	I/O

eWeLink is a smart home control APP that can control all ITEAD home automation devices and cooperated products. It allows you to remote control and manage your favorite smart devices of different brands in a single App. The smart home devices connect to home appliances and electronic devices via WiFi, allowing you to remote control through the APP eWeLink. There isn't a limit to the number of devices you can add to eWeLink, although we usually say 150.

eWeLink Basic Functions:

Remote on/off

Countdown/schedule timer

Share control

Group/scene management

Scene/smart scene

By adding the smart home devices to the eWeLink account, users can control the devices by following and accessing to Coolkit's WeChat subscription account, or by adding a widget to mobile desktop later on.

Users can download latest iOS eWeLink from Apple APP Store and Android eWeLink from Google Play. Please scan below QR code. If you are using a lower version, please uninstall and then scan and download the latest version.

Now we will explain how to use eWeLink.

Registration and Log in

eWeLink supports multiple languages. It currently includes simplified Chinese, traditional Chinese, English, Danish, Russian, Italian, Polish, France, Spanish, German, Turkish, Slovakia, Greece, Bulgaria, Czech, Slovenian, Portuguese(Brazil), etc. It will support more languages in the future.

易微联
E-WeLink

China (+86)   >

Phone number/Email

                                                  ×

Password   👁   ×

LOGIN

Forget Password

Feedback   Register

It supports registration by email or mobile phone number. We suggest you update your app to the latest version. **Users from Asian countries should register with mobile phone number. While users outside Asian area should register with email address. Turkey users also need to register with phone number.But sometimes the app will judge which server is more stable in your location, then it will auto judge whether to let you connect with Asian servers (register with phone number) or other servers(register with email).**

Select your country/region code, input a valid mobile phone number, then your phone will receive an SMS containing a verification code on the phone number you provided. If you do not receive the SMS, please disable SMS blocking. If registered by email address, you'll also need to select a random country code, you'll receive an email containing a verification code. Fill in the verification code

and password, confirm password and submit. For safety, the password should be no less than 8 characters. If you failed to receive any code, please submit a feedback on the App.

One account can only log in to one mobile phone. If you have logged in with phone A, later you log in with phone B, your device will auto-exit from phone A.

Reset Password

If you forget your password, please log out, go to the login interface. Click "Forget Password" to reset.

易微联
E-WeLink

China (+86) >

Phone number or Email

NEXT

WiFi Pairing and Device Addition

eWeLink obtains device status and controls devices by sending commands through the cloud server. This means all devices must first connect to the WiFi router and connect to our Amazon AWS server. So every new device must be paired with user's home WiFi and added to eWeLink account.

Before adding a device, Android phone must allow WiFi. Please make sure the WiFi your phone connects is the same as the one you select in eWeLink device pairing WiFi option. Please note that all eWeLink products should be paired via the WiFi router, starting from 3.1.0, LAN is not allowed any more.

Instructions are given below on how to pair with WiFi and add a new device:
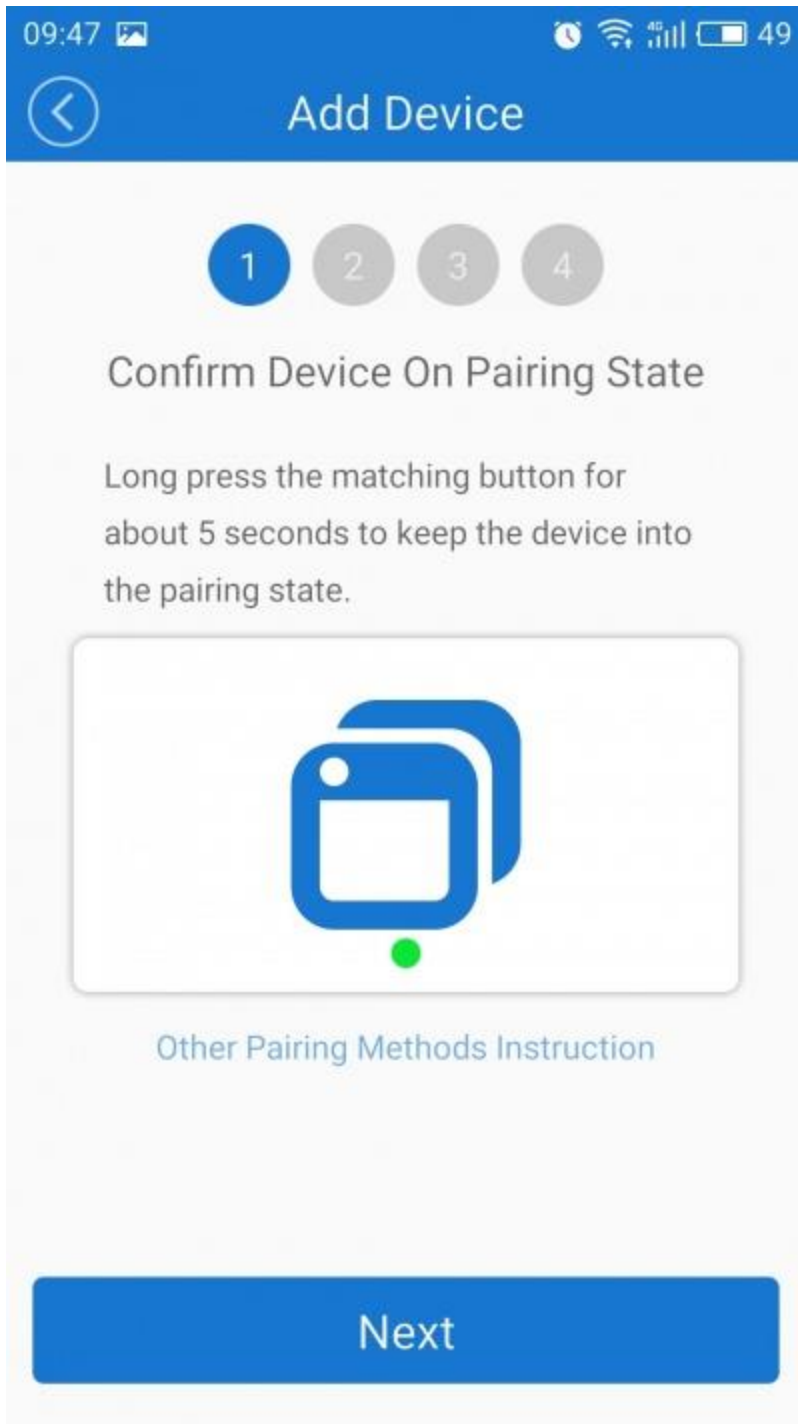
Step 1. Long press your device WiFi pairing button until it begins fast blinking.

Step 2. Open eWeLink. Click "+" to add the device. For Android, please select the pairing icon according to how the LED blinks. Click NEXT.

For iOS, please go to phone Setting>WiFi>connect to the WiFi that begins with ITEAD-*****, enter default password 12345678. Then go back to eWeLink, select the pairing icon (TOUCH or AP) according to how the LED blinks. Tap on NEXT.
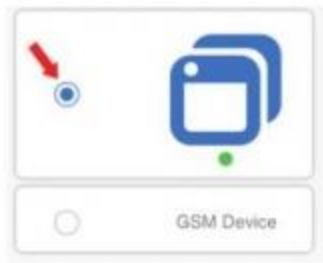
Android
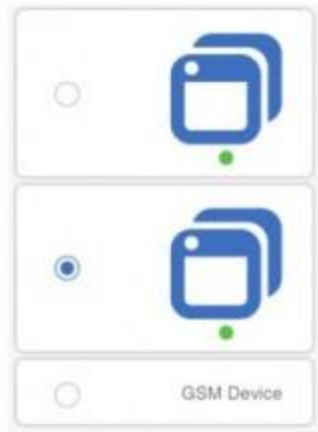
iOS

For Android, please select the first icon.

iOS:

V2.4.0 or higher: LED indicator fast blinks 1 time and repeats, please select the 2nd icon.

Other blinking ways, please select the 1st icon.

Lower than 2.4.0: LED indicator fast blinks 1 time and repeats, please select the 1st icon.

Other blinking ways, please select the 2nd icon.

A reminder here: if the phone asks a similar question like "eWeLink wants to locate your position, accept or reject?" Then please always click ACCEPT. Otherwise, it may cause a failed pairing.

① ② **③** ④

Pairing...

|////| | | 3min

Connecting the device, please wait...

Cancel

Step 3. Enter your home WiFi SSID and password. You must make sure the WiFi your are entering with is the same with the one your phone connecting. If different, it will cause offline problem. If no password, keep it blank. For the present, eWeLink only supports 2.4G wifi communication protocol. 5G band Wi-Fi network is not supported. Tap on NEXT.

Step 4. eWeLink will auto-search and connect to your device. After this process, you can name the device and submit. That's all!

After successfully added, make sure you don't change the WiFi the product connects. Once you change the WiFi, you must delete and re-add it to your account via the new WiFi.

Device List

After successfully added, all devices will be seen in the device list. Users can see which devices are online which are not. Users can also see WiFi signal strength, and whether there is new firmware to update, etc. Users can directly turn on/off the device by tapping the small switch icon. Besides, users can delete devices by tapping on the delete icon. Tap on the clock icon to see all timing schedules.

If you have too many devices, you may group them. Tap on the top "All Device" option to expand the group information. Click "Manage Group" to set up different group for your devices.

Device Details

Tap on a specified device to enter into device control interface. Different devices will have different functions and layout. Take some devices for example.

For Sonoff TH, users can see real time temperature and humidity. It also provides the capability to set manual/auto control mode. For dimming LED, users can adjust light color and brightness. For iFan, users can adjust among natural/sleep/normal mode, and in normal mode, users can adjust the wind level from 1-3.

Although different device types will have a different interface, they still have some icons in common.

Setting: change device name, chec the firmware version, enable/disable vibration switch.

Product info.: check manufacturer and model.

Share: the owner can share the device to other eWeLink users.

Timer: add new single/repeat schedules to turn on/off the device.

Countdown: add countdown timers to turn on/off the device.

Device Settings

In the upper right corner, there's a button contains device "Setting" and "Delete". In "Setting", you can change the name of device and channel. Check firmware version and update to latest firmware. You can enable or disable touch vibration. And most importantly, you can set power on state for your device. Usually, when the electricity is cut off, when it comes again, your switch stays in off. Now by setting power on state, your device will automatically in ON, OFF or KEEP when power on. KEEP: your device will be in the same state as it is before electricity cut off.

Sonoff 4CH Pro

Manu...
Model:S...

⚙ Setting

🗑 Delete

Light 1   Light 2   Light 3   Light 4

Share   Timer   Countdown

Device Setting

Device Name:	4ch ✎
Channel 1:	light one ✎
Channel 2:	light two ✎
Channel 3:	light three ✎
Channel 4:	light four ✎
Firmware version:2.0.1	Latest
Vibration Switch	⬛◯

Power on state

|			
Channel 1:	◯ ON	⦿ OFF	◯ Keep
Channel 2:	◯ ON	◯ OFF	⦿ Keep
Channel 3:	⦿ ON	◯ OFF	◯ Keep
Channel 4:	◯ ON	⦿ OFF	◯ Keep

Update: all the 1 gang devices support to push notification message once device status change.
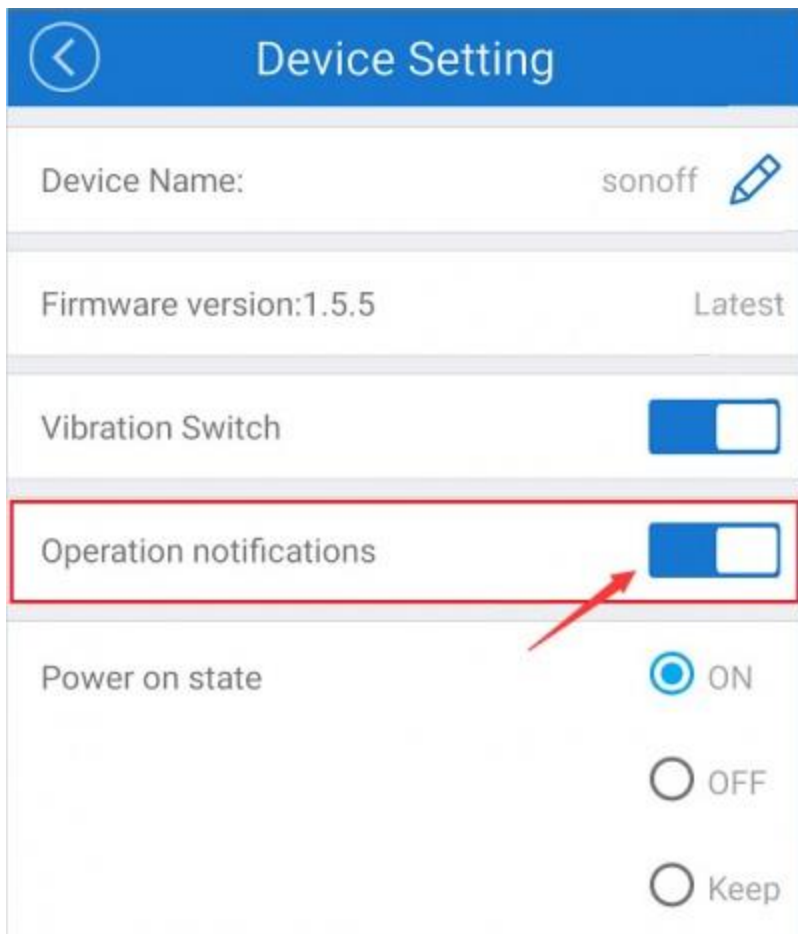
After enabling the notification, the phone/tablet that you are using the App with will receive device's latest status changes messages. Click the message, you'll enter the App and see the operation records.
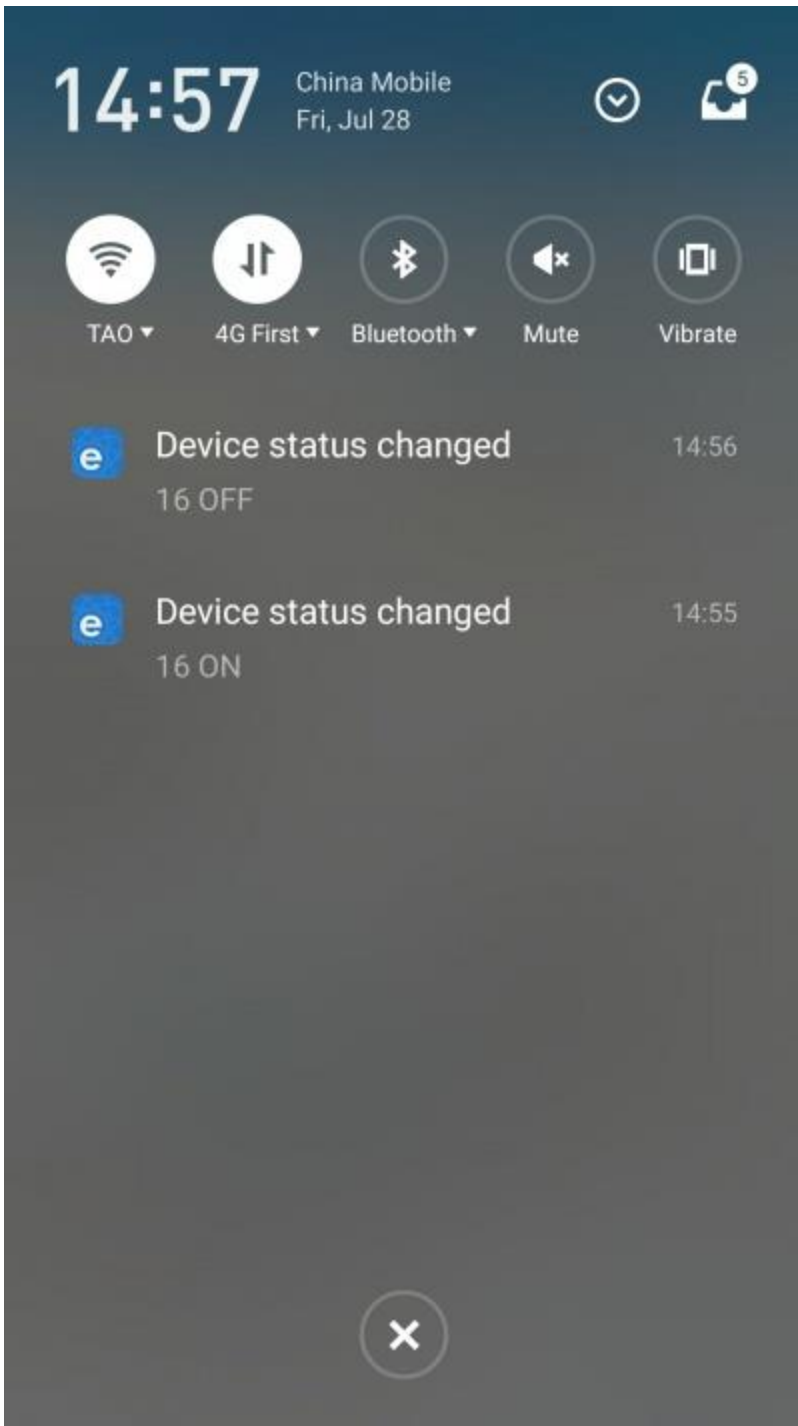
And you can check for these devices' operation records.

sonoff

Loop Timer

Setting

Delete

Operation record

ON

Share   Timer   Countdown

State	Time	Source
On	2017-08-17 17:13	APP
Off	2017-08-17 17:13	APP
On	2017-08-17 17:13	Device

Share Control

Device owner can share control of the devices to others, and thus others can turn on/off the device on eWeLink. Or you can create multiple accounts, add all device to one account, then share the devices with the other accounts. In sharing devices, the owner can authorize timer permissions to let the other users create, modify, edit and delete timers. This functionality is great for the family as it will be great to invite them to control together. The latest version supports to write a note in the sharing message, you can write down your name so that the other user know who you are. There isn't a limit to the number of users you can share with.
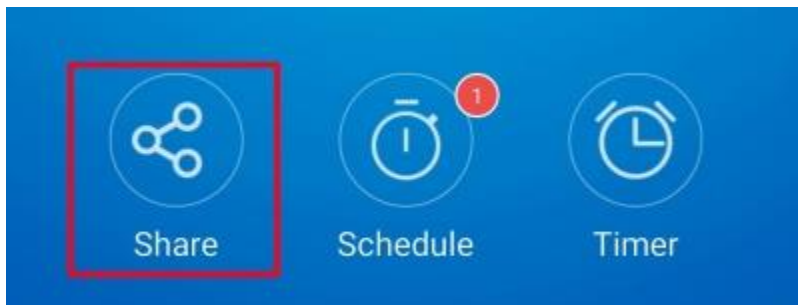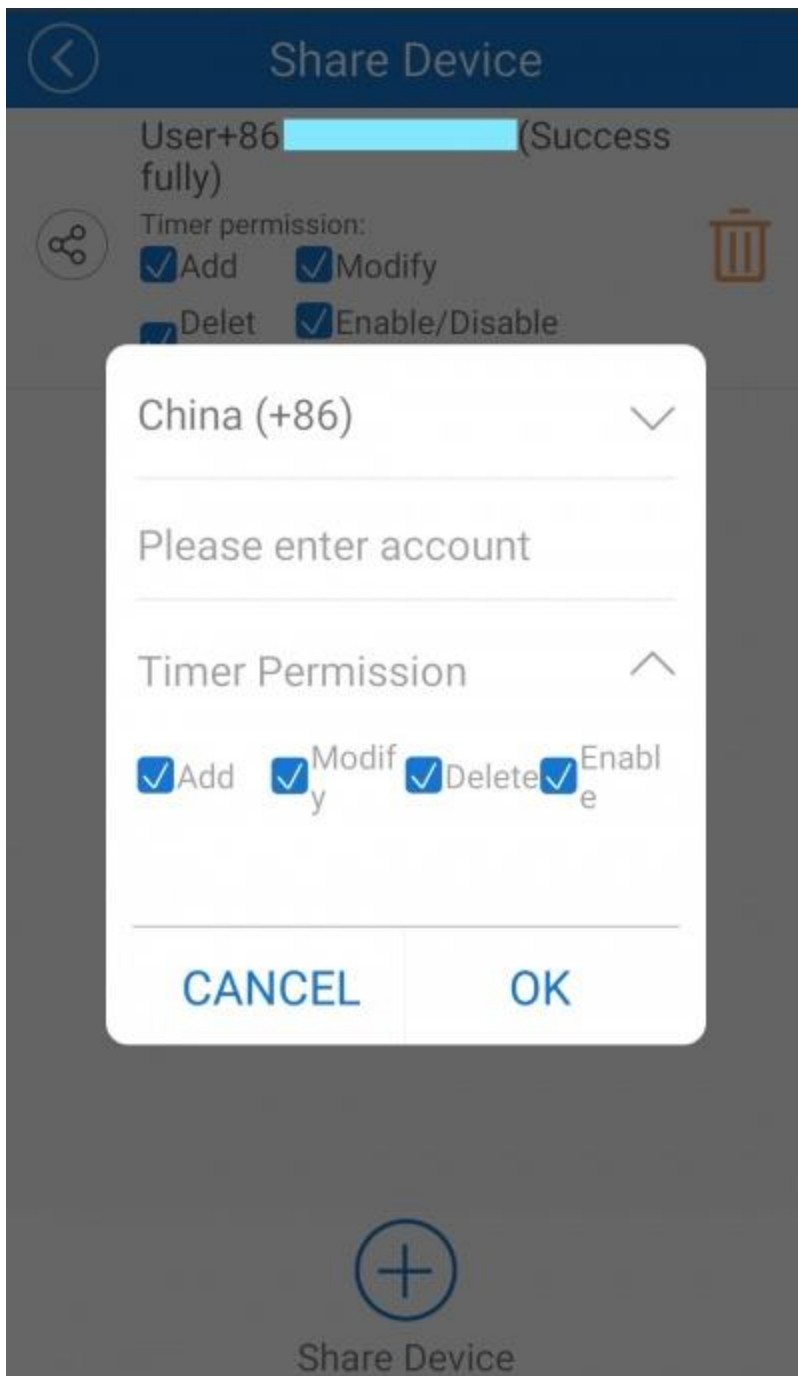
While sharing devices, both should stay on eWeLink. Because if the account you want to share is not online, he/she will not receive the invitation message.

How to make it? Firstly click Share, enter the eWeLink account info.(select country code, enter the phone number or email address) you want to share, tick the timer permissions you want to give, then click OK. Remember do not enter the country code ahead of your phone number. The other account will receive an invitation message. When he/she click Accept, the device will be shared successfully. The other user has access to turn on/off the device and to change the timers.

Once the device has been deleted by the owner, it will also disappear from the others' shared list.

Note：

1.Only when the two accounts are registered with the servers of the same continent can be shared with, no cross-continent accounts can be shared. If you use VPN to create accounts, they may connect to the server of different continents. If you are located at the junction of two continents, for example, Asian-European junction, the two accounts may connect to different servers. It's impossible to share from a phone number based account to an email account or vice versa, because the phone number based account is connecting to Asian servers, while the email based account doesn't.

2. The other users you share with can't access to scene, group or device power on status.

Timing Task

Timing task is a basic feature of all devices. The timing setting allows you to set a specified time to turn on/off the device. Please note that deal to chip capacity limit, it only supports totally 8 enabled timing tasks each device(including scheduled/countdown/loop timer). Currently, we provide three timing types: **scheduled timing, countdown timing and loop timing**.
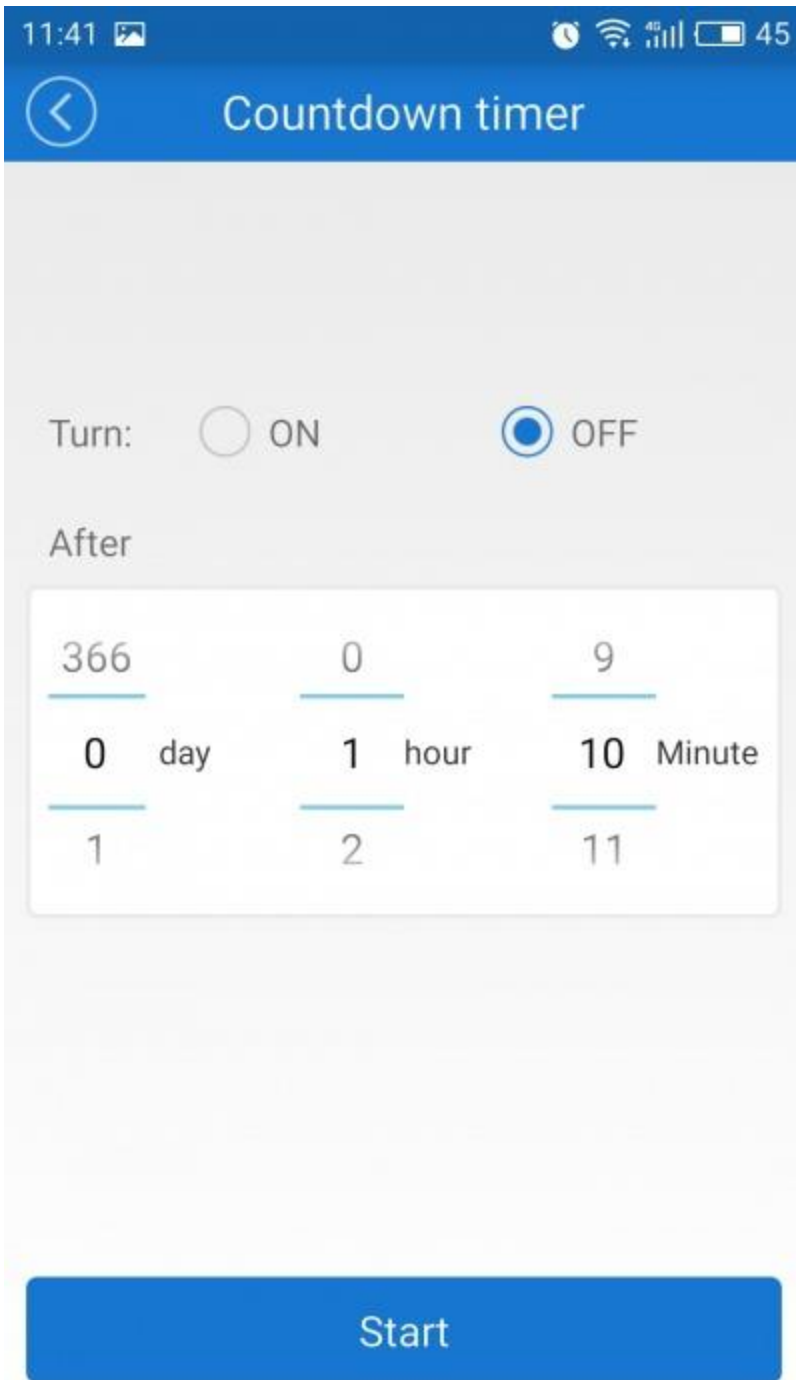
Schedule Timing

In schedule timer, you can set to turn on or off the device at the specified time for once or repeat dates.
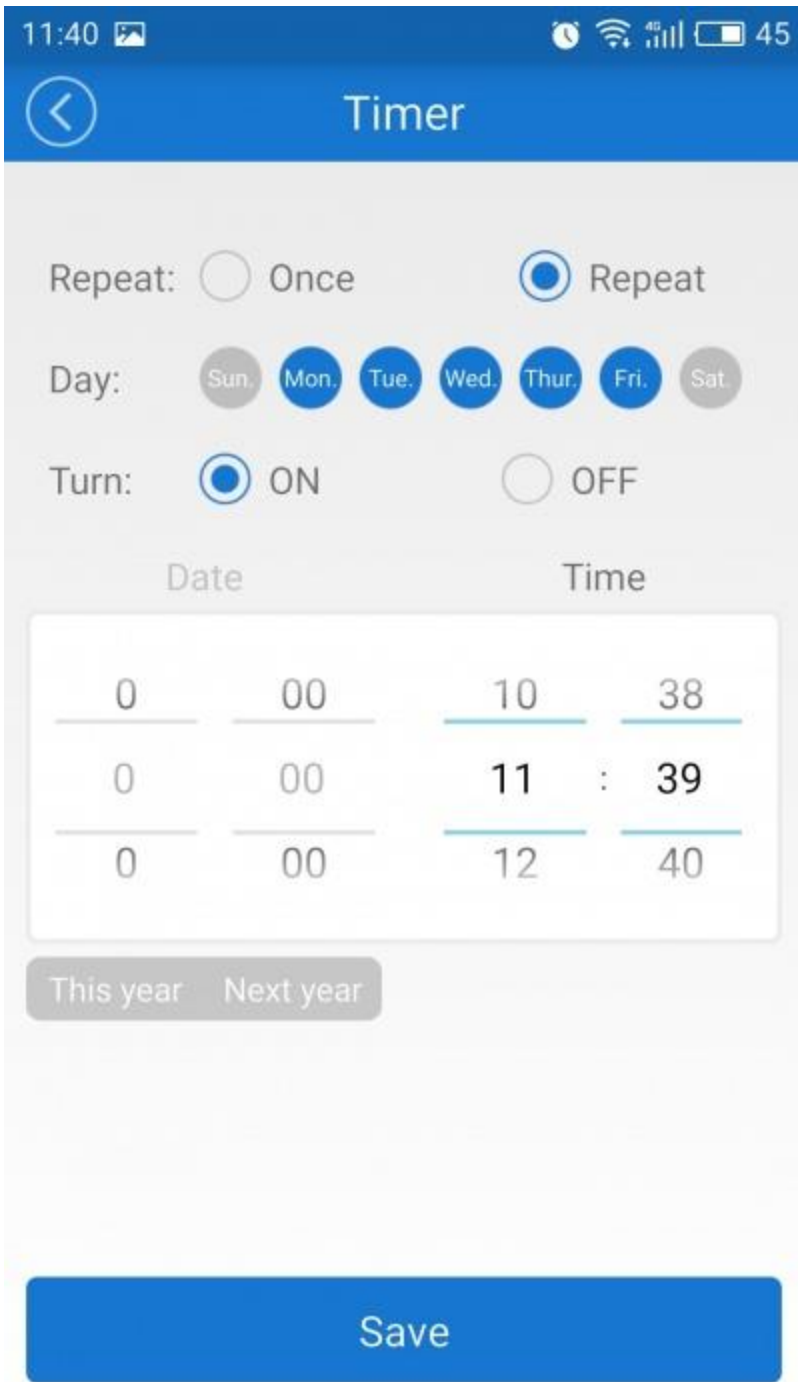
Countdown Timing

Countdown timer allows users to turn on/off the device after a preset time.

Countdown timer

Turn: ○ ON   ● OFF

After

366	0	9
0 day	**1** hour	**10** Minute
1	2	11

Start

Loop Timing

Loop timer can be auto-executed every preset time(say 1hr), and continue for a shorter preset time(say 20min). You can also choose not to tick the continuous cycle. For example, use loop timer to control oxygen pump for the fish tank. You can use loop timer to turn on oxygen pump every hour and keep it running for 20min and then auto-turn off each time.

The screenshot below is set the device to turn on every 10min and keep it working for 5min each time.

Loop Timer

every **0** hours **10** minutes execute

◉ Open   ○ Close

☑ **0** hours **5** minutes later execute

○ Open   ◉ Close

start time

Aug	04		10		52
Sep	**05**	**2016**	**11**	:	**53**
Oct	06	2017	12		54

Enable

| Cancel | Complete |

Loop timer supported devices (updating):all 1 gang switch/socket(required firmware ver. 1.5.0 and higher, G1 is excluded from the list), including S20 smart socket, Sonoff Touch EU/US, Sonoff Basic, Sonoff SV, Sonoff TH10/TH16, Sonoff RF, Slampher, Sonoff Pow (required firmware ver. 2.0.3 and higher), Motor Clockwise/ Anticlockwise Running WiFi Wireless Switch, 1 Channel Inching /Self-Locking WiFi Wireless Switch 5V/12V, S30 Smart Socket, Sonoff T1 UK/EU/US 1 Gang, RF Bridge 433-the added RF Remote, Sonoff Pow.

Scene

A scene is set up to auto-execute an action for all devices in the same scene. There are three kinds of scenes, they are different in the trigger condition. The first one is triggered by a click, the second one is triggered by some data of a device, such as temperature, humidity, light, air quality

and noise level, the third one is triggered by status from another device. Note that only device owner can create scenes, and the system can save max 21 scenes(this limit was added at the end of 2017). Scenes can't be shared to other users.

IFTTT doesn't support to use one applet to trigger another applet, so as our scene feature.

For example, you created two scenes: when device A is turned on, then turn on device B. When device B is turned on, then turn on device C. The result is: When your device A is turned on, only device B can be turned on, while device C won't be turned on.

Click to execute

By creating a scene like this, users can turn on/off a group of devices simultaneously. For example, create a scene "Leave", add all the devices to be set on or off to the scene, save it. Once you shut the door, take out your phone and enter into the scene, go to scene "Leave", tap on "Run", all devices will be turned off immediately.
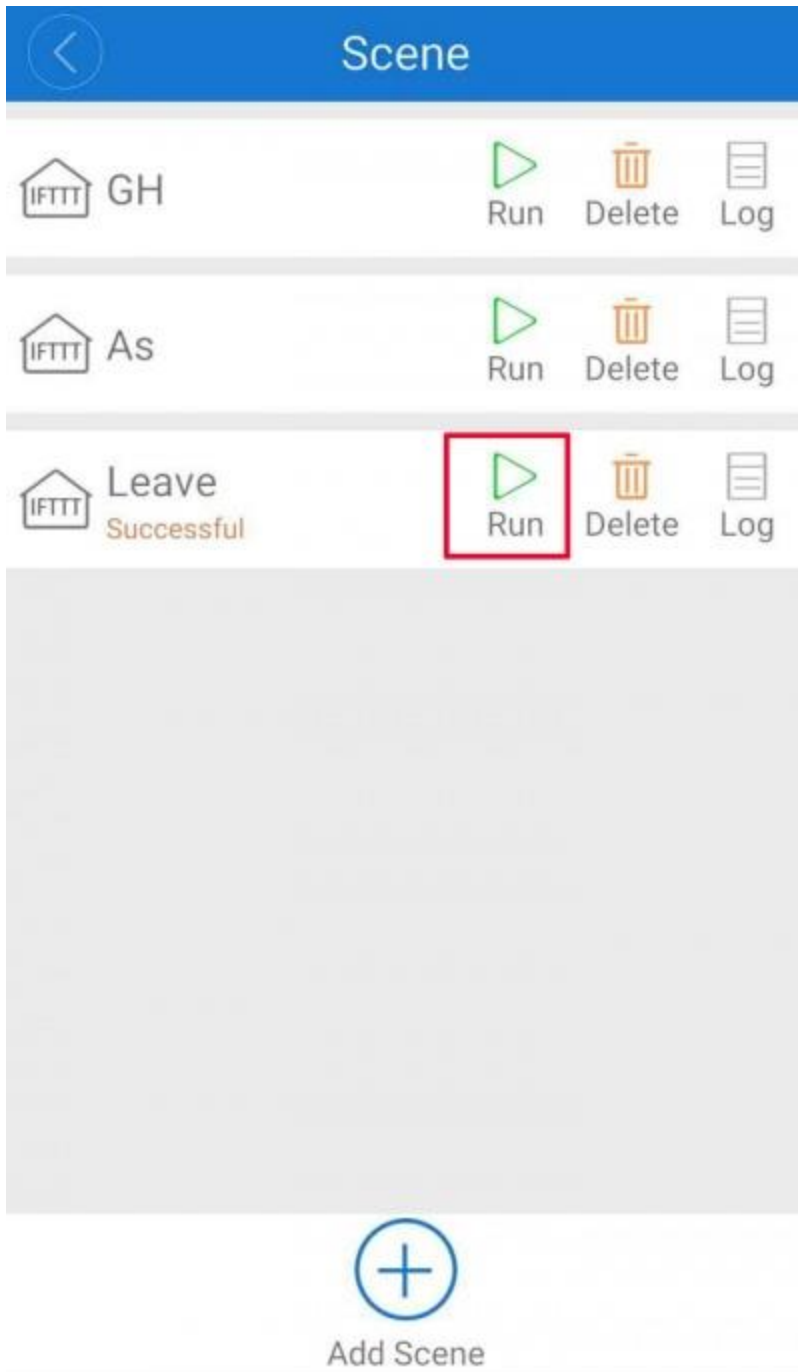
Users should select "Click to execute" in the condition, add different existing devices, name the scene and save it. The 2 channel and multi-channel devices can even set power on state: on, off or keep.

GH   Run   Delete   Log

As   Run   Delete   Log

Leave
Successful   Run   Delete   Log

Add Scene

If you don't find your device on the list, please check if your app version is too low. You should always update to the latest version, which supports most features.

Triggered by device data range

This kind of scene is usually called smart scene. Users can set a data range as a condition to trigger ON/OFF other devices. You may set a specified temperature/humidity/light intensity/sound level range from Sonoff SC, Sonoff TH, S22, At Home/Away status from Nest or RF Bridge's alarm as a condition to trigger on/off one or more smart devices under your account.

◯ Click to execute

⦿ **Trigger Device**

⦿ sonoff TH

Temperature ▾ ≥ ▾ _____ ⊕

Temperature≥30 ⊖

SAVE

Supported Devices(updating):

Trigger devices: Sonoff SC, Sonoff TH (old version), Sonoff TH10, Sonoff TH16, S22, Nest Thermostat, RF Bridge 433 (Android 3.1.0 and higher)-the added Alarms.

Execute devices: except the trigger devices, all ITEAD smart devices are included, RF Bridge 433 (Android 3.1.0 and higher)-the added RF Remote controller.

Triggered by device status

We have supported a new type of scene that triggered by device's status. If device A status get changed, then the status of selected device will change to preset status.

For example, you can set when Sonoff SV is ON, then execute turn on 4ch light one and turn off B1.

○ Click to execute

◉ Trigger Device

◉ Sonoff SV
○ slampher RF
○ Touch one

◉ On   ○ Off

SAVE

Execute Devices

- ◉ 4ch
- ○ itead socket
- ○ s30
- ○ touch two
- ○ switch four

	On	Off	keep
light one:	○	○	◉
light two:	○	◉	○
light three:	◉	○	○
light four:	○	◉	○

SAVE

Works with Google Nest

eWeLink is compatible with Nest now! Check out how to use Nest to create smart scenes to control Sonoff devices here.
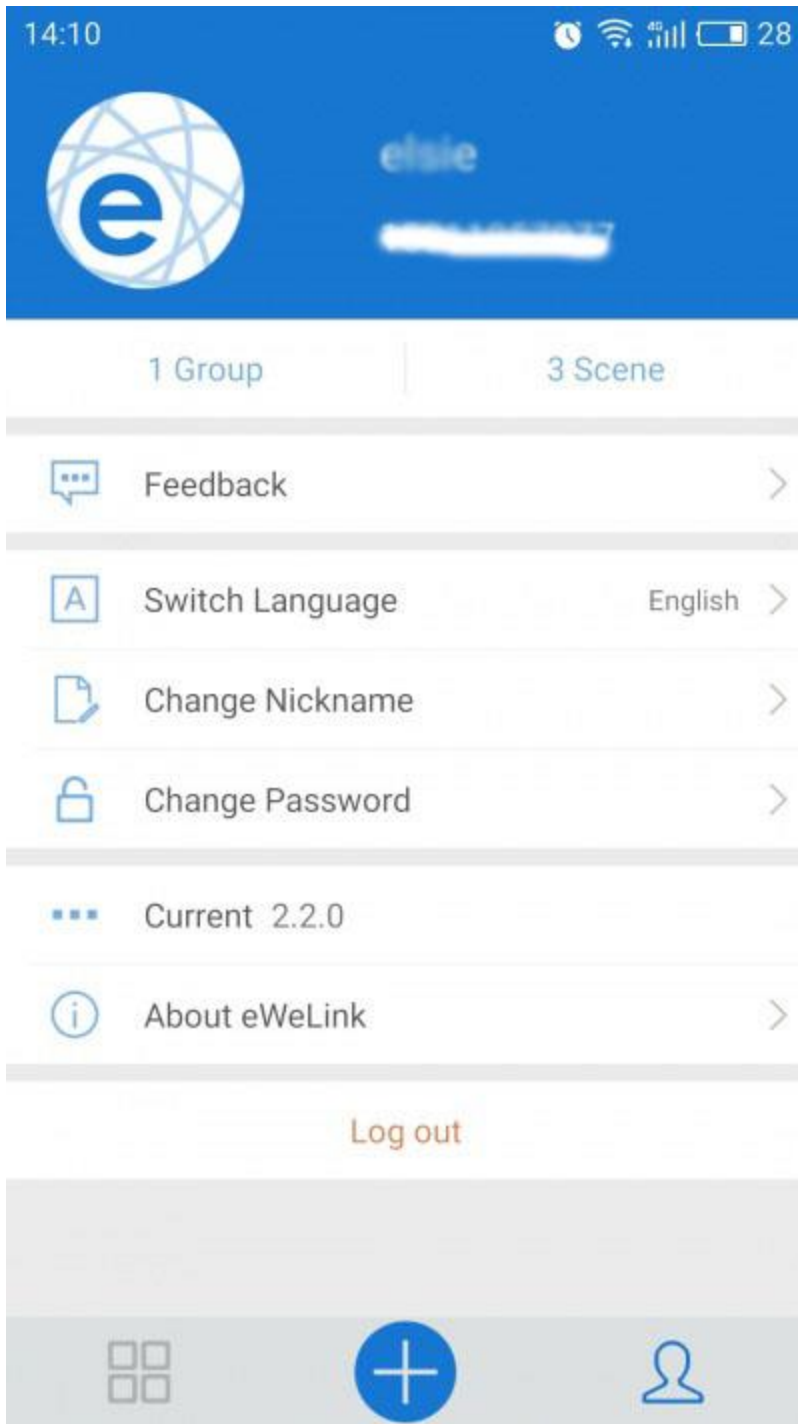
Supported Devices(updating):

Trigger devices: all devices except Sonoff SC, Sonoff TH (old version), Sonoff TH10, Sonoff TH16, S22, Nest Thermostat, RF Bridge 433

Execute devices: all devices except Sonoff SC, Sonoff TH (old version), Sonoff TH10, Sonoff TH16, S22, Nest Thermostat, RF Bridge 433

User Center

In user center, users can see some settings and information.

On the top, users can see how many groups and scenes they have created.

Feedback: Users can submit your feedback on Feedback. Our IT support will follow up the feedback and reply in workdays.

You can also submit feedback on the login interface, as shown below:

易微联
E-WeLink

China (+86) >

Phone number/Email

⨉

Password 👁 ⨉

LOGIN

Forget Password

Feedback ⬅

Register

Switch Language: Users can switch between different languages.

Users can change nickname and password here. Also, they can check APP version and update to the latest one.

WeChat subscription account:coolkitcn
(Control devices in WeChat)

EWeLink is a free smart home APP.

EWeLink can control all smart home products from ITEAD and cooperated partners. It supports remotely turn on/ off connected devices, set timing schedules, share devices, manage group and scene/smart scene. With EWeLink, you can adjust color and brightness for multiple RGB LED, you can monitor temperature and humidity for Sonoff TH, you can even monitor the air quality.

Copy WeChat account and follow

In "About eWeLink", you will see the QR code, which is our WeChat subscription account. By following our account, you can control your devices on WeChat page. We will post articles introducing our new smart home devices, and user guide there.

We will develop more functions for WeChat control in the future.

LAN Control

iOS & Android eWeLink V3.5.0 and higher have supported LAN control function! When your WiFi can't access the Internet or if our server is down, don't worry your devices will go offline, simply enable the LAN control, you can still turn on/off the devices on app. Remember to keep your WiFi connection with our app.

The below 1-gang Sonoff devices with simple on/off feature support control via LAN (require firmware 1.8.0 and higher):

Sonoff S20, Sonoff S26, Sonoff S85, Sonoff S30, Sonoff Basic, Sonoff RF, Sonoff Slampher, Sonoff SV, S31 Lite, Sonoff T1 UK/US/EU-1 Gang, Sonoff Touch EU/US, 1 Channel Inching /Self-lockling Mode WiFi Wireless Switch 5V/12V, Inching /self-locking WiFi Wireless Switch 5V.

eWeLink devices from other brands can also support LAN control, note that only the 1 gang devices that only have simple on/off feature are supported. Currently, other devices like the power measuring device, temperature measuring device don't support LAN control function.

Demonstration video:https://www.youtube.com/watch?v=5ImBehZO46I&feature=share
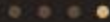
Desktop Widget

11:54 AM
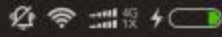
EWeLink   EWelink ⚙

🔘   smart power plug   ❯
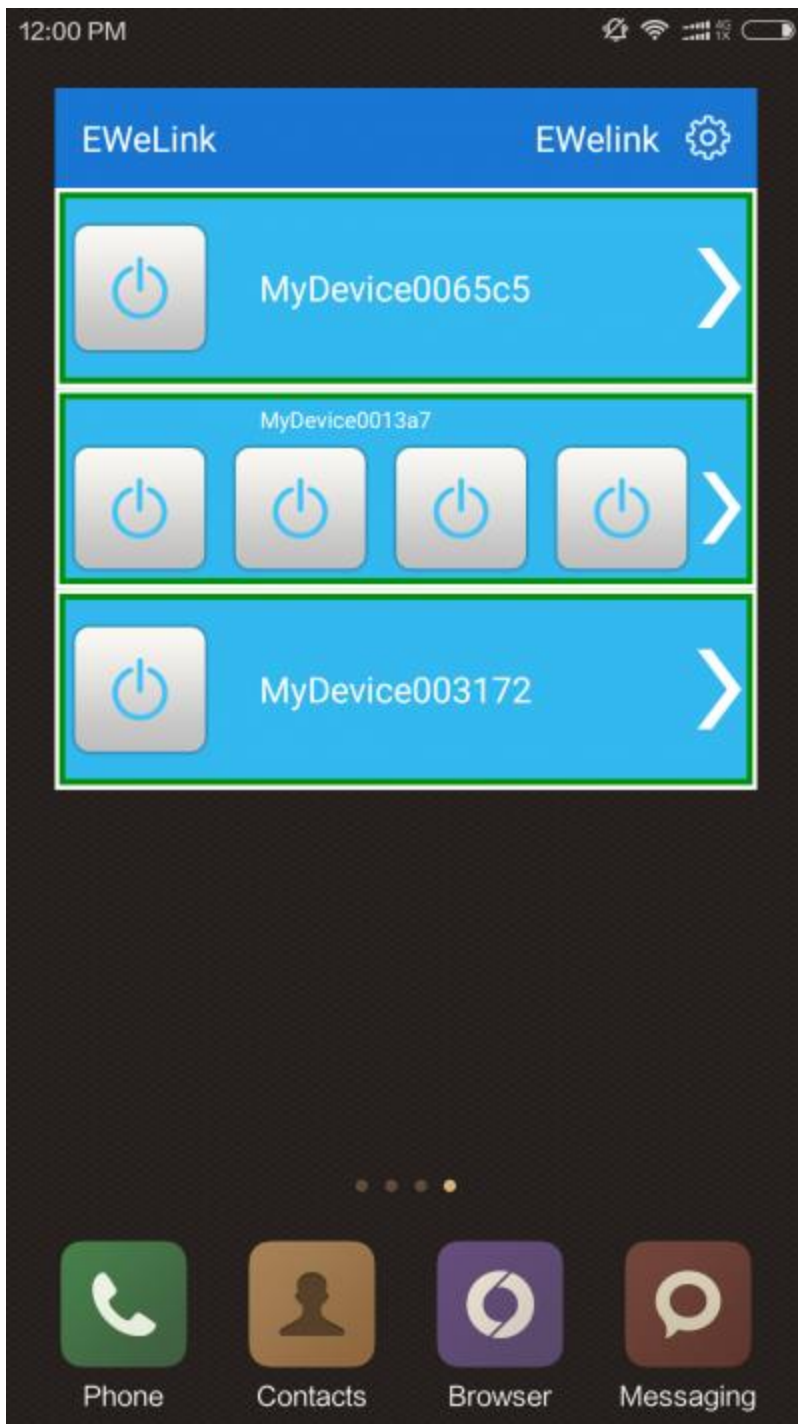
Phone   Contacts   Browser   Messaging

eWeLink android version supports to add device widget to phone desktop. By adding the devices widget to the desktop, users can directly see device's real-time state and directly tap to turn on/off. Note: all 1 gang switches and sockets and 4 gang switches support widget. For Sonoff TH10/TH16, ver 2.3.3 and higher support widget.

These products don't support to set widget (updating): Sonoff B1, Sonoff Dual, Sonoff TH10/TH16(Versions lower than 2.3.3), S22, Sonoff SC, Sonoff Hum, Sonoff T1 (2-3 gang), RF Bridge 433, iFan, all eWeLink supported 2-3 gang products(include other brands).

Downloads

File:Sonoff SV-Dimension.pdf

File:Sonoff SV Schematic.pdf

File:Sonoff SV-VIEW.pdf